

190309

Bureau of Technology Services
IRNE Fiber Expansion Program
Astound Ordinance Submission

Portland City Council
March 3rd, 2021



Discussion Points

Seeking Council Approval

Value of the Network

Partners

- Multnomah County
- Office for Community Technology

Detail of Proposal



Contract with Astound Broadband

- Leveraging State of Oregon Contract
 - Cooperative Language
- 10 – year Not to Exceed amount of \$11 Million
- BTS will fund this agreement by directly billing both internal and external customers
- BTS has appropriation in its FY 2020-21 budget to cover the current year expense
- Funding for the out years of this agreement is included in the BTS 5-Year and CIP plans
- We are not seeking new funds

Mission Critical Infrastructure

- Every City Bureau relies on the fiber optic network for communication
 - Voice
 - Email
 - Automated Fire Dispatch via 911 and Public Safety Radio System
 - Remote connectivity – VPN, SAP, Training
 - Zoom and other on-line meetings
 - Critical for pandemic response
- Partners
 - Multnomah County
 - Metro
 - City of Troutdale
 - City of Gresham
 - Mt Hood Community College
 - Office for Community Technology
 - Portland Public Schools
 - Multnomah Education Service District

Multnomah County

- Tracey Massey – Interim Director, Department of County Assets\CIO for Multnomah County
- Jacob Farkas – Project Manager for Multnomah County



Multnomah County: Values of the Network

Community Benefits

- Digital Equity initiatives through the Multnomah County Library
 - Future plans with the Library Capital Bond and increasing community offerings
- Access for School Based Health Centers
 - Opportunity for TeleHealth appointments in the future
- New Courthouse and Health Headquarters have state of the art technology, requiring a robust network

Technology Benefits

- Ability to scale based on needs of County locations
- With several hub sites identified, we can expand the network, if/when needed

Partnership Benefits

- Strength in numbers
- Provides the opportunity to engage with providers
- Drives costs down



Office for Community Technology

- Elisabeth Perez – Interim Director, Office for Community Technology
- Rebecca Gibbons – Coordinator of Digital Equity



OCT – BTS Collaboration

- Digital Equity Action Plan / Broadband Strategic Plan Goals
- Community Broadband Planning
 - MHCRC / I-Net Stakeholders
 - Public – Private Partnership ROW, (Right of Way), agreement opportunities
 - Community needs assessments / feasibility studies
 - Digital Inclusion Network voice
- Opportunity
 - Supporting consumer choice / market competition
 - High-speed fiber backbone to support CBO, (Community Based Organizations), digital literacy programming
 - Building public agency fiber network presents future opportunity for low-cost residential service options



Detail of Proposal

- Astound will install dark fiber to 171 locations
- Fixed rates for dark fiber set for 10 years
 - Not subject to inflationary or contractual rate increase
 - \$500 a month per location
- City controlled bandwidth availability
- \$11 million not to exceed contract value for 10 years
- Seeking Council Approval for a 10-year contract with Astound with an \$11 million value



City of Portland
Bureau of Technology Services

Summary

Advantages:

Rates not subject to inflationary increases for 10 years

City controlled bandwidth

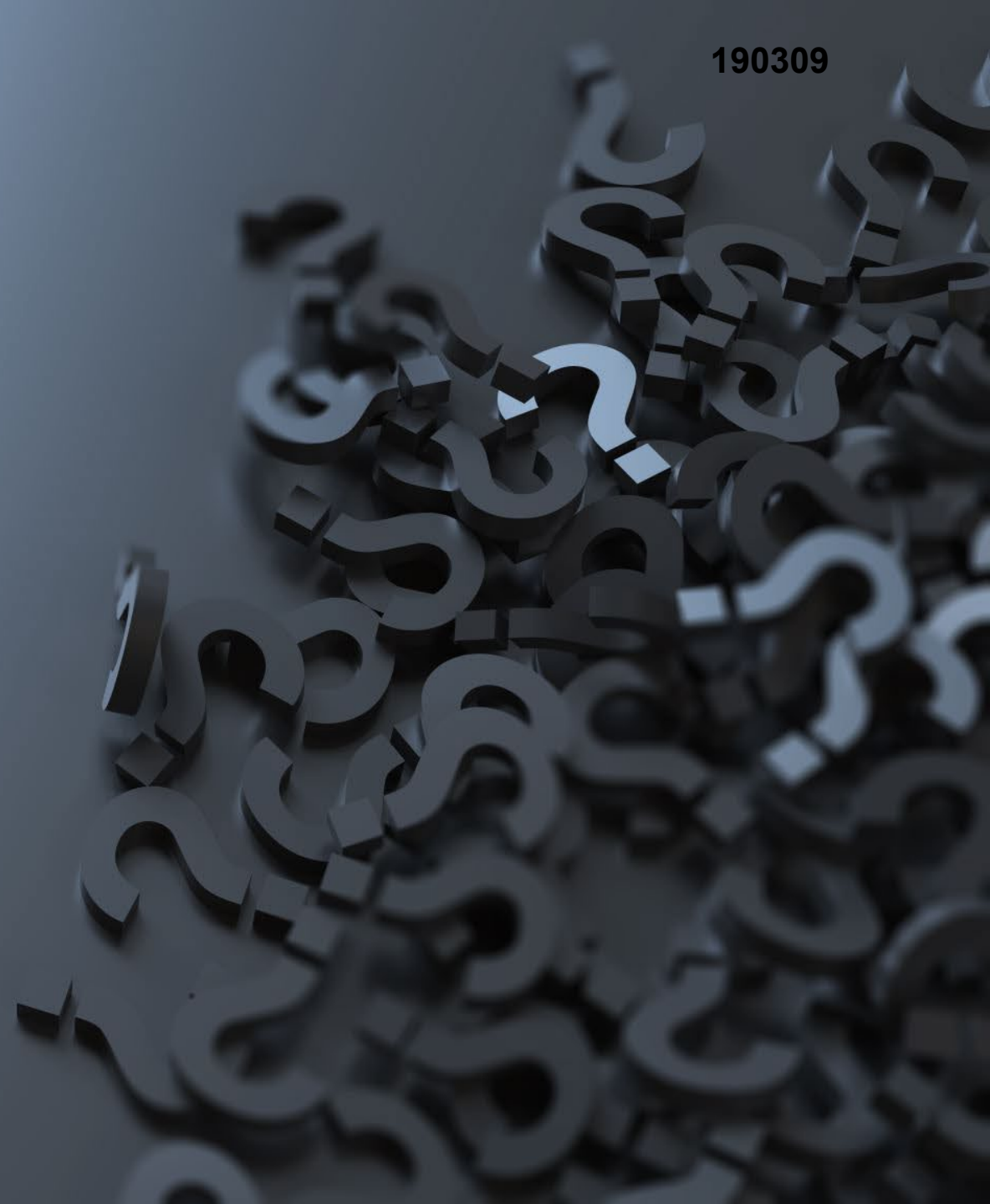
Best technical and financial solution

Supports 10-year capacity planning and implementation

Support regional partners and their service communities

Ask:

Asking Council for approval of ordinance



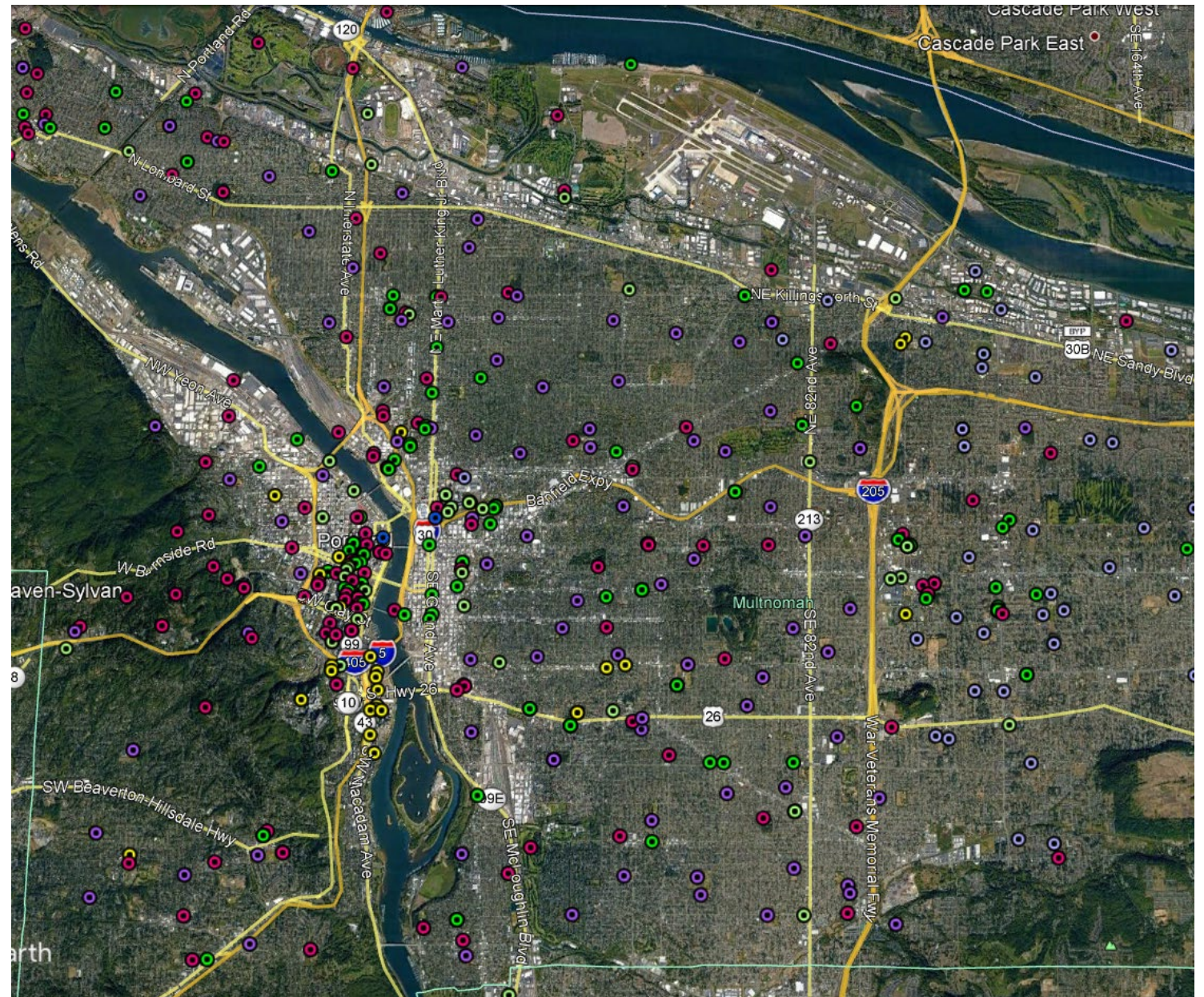
Appendix Materials

- **Project Overview**
- **The History of our Networks**
 - **IRNE**
 - **I-NET**
 - **I-NET Facts**
- **Project Timeline**



Project Overview

286 locations need action
12 – 18 months migration path
6 years of planning
2 years vendor engagement
Network capacity expansion
Delivers dark fiber



History of our Networks



IRNE

Integrated Regional Network Enterprise



- **IRNE is:**
 - **City owned and managed WAN (wide area network) delivering voice and data services**
- **2000 – Main IRNE sites installed**
- **2002 – All city offices and voice migrated to IRNE**
- **2004 – Sonet ring installed for capacity**
 - (2 years before the iPhone or Android were released)
- **2014 – Capacity expansion to 10 GB**
- **2016 – Capacity expanded installed DWDM system.**
 - Allowing for networks to be created based on the spectrum of light (ROYGBIV)
- **21/22 – Continued capacity expansion to 100 GB**
- **Division Transit Corridor**



I-Net Institutional Network

- I-Net is:
 - Offnet WAN (wide area network) owned and managed by Comcast
 - Reaches sites not served by City fiber
 - Serves locations for Public Schools, Multnomah County, Libraries and other municipalities.
 - City of Portland administers the operations of this network for all stakeholders
- 2001- I-Net's first year of deployment
- 2011- Latest franchise agreement with Comcast
- 2016 – Future network planning for I-Net begins
- 2021 – Current franchise expires December 31st

I-Net

Institutional Network

Facts

- 286 sites on I-Net
 - 61 City of Portland locations
 - 56 Multnomah County locations
 - 164 School locations
 - Remainder other partner agencies
- Annual spend to Comcast \$1,400,000
- Speed rated services only – 400 MG and 1 GB
 - Leading to capacity constraints

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City of Portland
Bureau of Technology Services

DECISION TIMELINE

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IRNE Fiber Expansion Program

Astound Ordinance Decision

